



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,243	06/24/2003	Eric P. Codner	1512.020	1167

23598 7590 02/02/2007  
BOYLE FREDRICKSON NEWHOLM STEIN & GRATZ, S.C.  
250 E. WISCONSIN AVENUE  
SUITE 1030  
MILWAUKEE, WI 53202

EXAMINER
----------

STAFIRA, MICHAEL PATRICK

ART UNIT	PAPER NUMBER
----------	--------------

2877

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/602,243

Applicant(s)

CODNER ET AL.

Examiner

Michael P. Stafira

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 8-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-5, 14, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Johansen ('094).

#### **Claim1**

Johansen ('094) discloses a support frame (Fig. 1a, Ref. 100, 500) having an entrance (See Fig. 1a) providing a path for receiving an analyzing light beam along a first fixed axis (Fig. 1a, Ref. 110); an exit (See Fig. 1a) for providing a path for transmitting a modified light beam along a second fixed axis Fig. 1a, Ref. 490); and a holder (Fig. 1a, Ref. 210) for supporting the sample cell (Fig. 1a, Ref. 200) with the metallic film (Fig. 2a, Ref. 220) in a horizontal orientation (See Fig. 1a); an optical assembly (Fig. 7, Ref. 100, 500) for adjustably directing the analyzing light beam received along the first axis at one of a range of incident angles at the second side of a film of a sample cell in the holder and for directing reflected light received at a corresponding one of a range of reflection angles from the second side of the film back along the

Art Unit: 2877

second axis (Fig. 7, See Arrows)(Col. 7, lines 1-8).

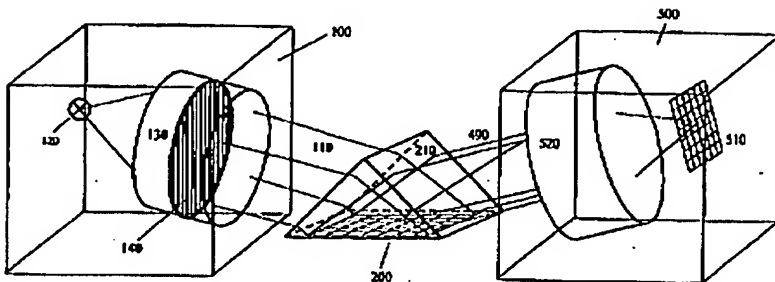


Fig. 1a

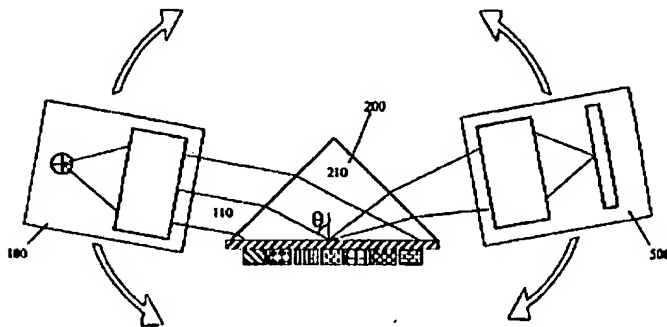


Fig. 7

**Claim 3**

Johansen ('094) discloses a single operator communicating with the optical assembly to simultaneously change the angle of incidence and reflection by the same amount (Col. 7, lines 1-22).

**Claim 4**

Johansen ('094) further discloses a coupling prism (Fig. 1a, Ref. 210) having a first prism face adjacent to the second side of the film (Fig. 2a, Ref. 220) and receiving from the optical assembly at a second prism face the analyzing light beam (Fig. 1a, Ref. 110) directed toward the second side of the film (See Fig. 1a) and, providing to the optical assembly through a third prism

Art Unit: 2877

face, the modified light beam reflected (Fig. 1a, Ref. 490) from the second side of the film (See Fig. 1a).

**Claim 5**

Johansen ('094) further discloses a correction mechanism adjusting the position of the analyzing light beam incident on the second prism face and correcting the offset of the modified light beam from the third prism face caused by refraction of the prism with different angles of incidence and reflection (Col. 7, lines 1-22).

**Claim 14**

Johansen ('094) discloses a light source (Fig. 1a, Ref. 120) directing the analyzing light beam along the first fixed axis (Fig. 1a, Ref. 110) and a camera (Fig. 1a, Ref. 510) receiving the modified light beam along the second fixed axis (Fig. 1a, Ref. 490).

**Claim 15**

Johansen ('094) further discloses the holder supports the sample cell with the first side of the film facing upward (Col. 7, lines 18-22).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johansen ('094) as applied to claim 1 above, and further in view of Jap 63-82346.

**Claim 2**

Johansen ('094) substantially teaches the claimed invention except that it does not show a first fixed axis and the second fixed axis are substantially aligned and horizontal. Jap 63-82346 shows that it is known to provide a first fixed axis and a second fixed axis are aligned horizontal (See Fig. 1) for an apparatus for optical inspection of a sample. It would have been obvious to combine the device of Johansen ('094) with the horizontal axis of Jap 63-82346 for the purpose of providing an axis that makes the optical sample inspection apparatus easy to assemble, therefore decreasing the amount of assembly time.

**Claim 6**

Johansen ('094) substantially teaches the claimed invention except that it does not show the optical assembly is constructed of movable planar mirrors. Jap 63-82346 shows that it is known to provide an optical assembly constructed of planar mirrors (See Fig. 1) for an apparatus for optical inspection of a sample. It would have been obvious to combine the device of Johansen ('094) with the planar mirrors of Jap 63-82346 for the purpose of providing an optical assembly that requires little effort to align the planar mirror relative to one another, therefore reducing the amount of time needed in assembling the optical apparatus.

**Claim 7**

Johansen ('094) substantially teaches the claimed invention except that it does not show the optical assembly includes a first mirror receiving the analyzing light beam through the entrance along the first axis and directing the analyzing light beam at a third fixed angle to a second mirror moving about a point near the second side of the film in the holder; and wherein the optical assembly further includes a third mirror movable about the point near the second side

of the film in the holder to receive the reflected modified light beam from the second side of the film and directing the modified light beam at a fourth fixed angle to a fourth mirror transmitting the modified light beam to the exit along the second axis. Jap 63-82346 shows that it is known to provide an optical assembly includes a first mirror receiving the analyzing light beam through the entrance along the first axis and directing the analyzing light beam at a third fixed angle to a second mirror moving about a point near the second side of the film in the holder; and wherein the optical assembly further includes a third mirror movable about the point near the second side of the film in the holder to receive the reflected modified light beam from the second side of the film and directing the modified light beam at a fourth fixed angle to a fourth mirror transmitting the modified light beam to the exit along the second axis for an apparatus for optical inspection of a sample. It would have been obvious to combine the device of Johansen ('094) with the mirrors of Jap 63-82346 for the purpose of providing an optical axis that can be aligned at different angles, therefore providing increased reliability that the entire sample is measured.

### *Response to Arguments*

5. Applicant's arguments filed November 10, 2006 have been fully considered but they are not persuasive.

Applicant takes the position that the reference of Johansen (6,862,094) fails to anticipate "an optical assembly for adjustably directing the analyzing light beam received along the first fixed axis at one of a range of incident angles" as disclosed on page 1 of applicant's remarks.

Examiner takes the position that the claim language as presented to the examiner only states that "an optical assembly for adjustably directing the analyzing light beam received along

Art Unit: 2877

the first axis at one of a range of incident angles etc..”. Applicant’s claim limitation fails to disclose a first **fixed** axis and therefore the reference of Johansen reads on the claimed limitation as rejected in the above paragraphs. Since the limitation fails to disclose a fixed axis light from the source the adjustable axis of Johansen reads on the claimed limitation because it also produces incident angles along an axis and therefore all rejected claims stand as disclose in the paragraphs above.

***Allowable Subject Matter***

6. Claims 8-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



Art Unit: 2877

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430.

The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael P. Stafira  
Primary Examiner  
Art Unit 2877

January 29, 2007